



Science and Technology Development 2019

U.S. Central Command Tech Focus

- We focus on the **JOINT** solution that has the potential to satisfy a **JOINT validated** need
- Separate from the many technology needs of our customer(s) those technology needs which:
 - *Do not have a readily available solution*
 - For high-impact needs there is *insufficient activity pursuing a solution*
- Seek out game-changing technologies which our customer(s) don't know they need

Some technology areas we “pursue”:

Chemical, Biological , Radiological, Nuclear, and Enhanced Conventional Weapons

- **Detection of CBRNE at tactically significant distances; with emphasis on the “E”**
- **Pre-shot counter-sniper, counter-mortar, counter-RPG technologies; with emphasis on automated systems**
- **Technologies which enable the transfer of information more securely, more quickly, to a wider set of users, to include the warfighter when it makes sense, with less bandwidth and dedicated support resources, e.g.:**
 - **Multi-level Security over single architectures**
 - **Bandwidth compression / reduction techniques**
 - **Data reduction [data=>info=>knowledge=>understanding=>wisdom]**
- **Through automation, remote action, new and novel techniques, technologies which reduce risk and / or stress on the force and / or improve the efficiency and effectiveness of our action(s)**
- **Technologies which allow for greater persistence over the battlespace with fewer platforms; employing improved sensor technology providing greater fidelity of information**

Thematic areas of concern

(not in priority order)

- A2AD solutions
- Detect / Defeat:
 - IED initiators / initiator systems
 - Buried / concealed IEDs
 - Production and assembly of IEDs
- HME production standoff detection
- Culvert access denial / alerting
- Persistence in surveillance
- Biometrics (Identity dominance for FP/access)
- Non-lethal vehicle / vessel stop
- Medical
- Reduce stress on the force:
 - Force Protection requirements
 - Increased automation
- Anti-swarm lethal / non-lethal
- Enable Partner Support
- Predictive analysis techniques
- Tunnel detection / defeat
- Holding all targets at risk
- Messaging / counter-Messaging
- Voice to Voice Translation (Urdu, Pashtu, Dari, Farsi)
- Mine Warfare (offensive/defensive)
- IAMD overmatch solutions
- C4ISR systems:
 - Processing, exploitation & dissemination
 - Multi-level security
 - Cross domain solutions
 - Information access to tactical edge via MIL Comms, Cellular & WiFi
- Tagging, Tracking, and Locating (TTL)
- Denying non-state actors state-like functions
- Energy & Power efficiencies
- Scalable non-lethal / lethal effects
 - Directed Energy
 - Kinetics
- True SA for Blue ... Fused Red
- Sustaining the force – reduced size, weight, amount, and retrograde
- Any sensor any shooter
- Cyber Warfare Defense
- Detect, track, defeat UAS (Grp 1&2)

Points of Contact

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Discovery & Integration